

Application No. 10/320,107
Office Action mailed: Oct 21, 2004
Response dated: Jan 10, 2005

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-28 (cancelled)

29. (currently amended) A video signal processing device comprising:

a video frame input source;

a first buffer coupled to the video frame input source, the first buffer adapted to receive odd-numbered video lines from the video ~~frame-frame~~ input, producing a first video frame having a first size independent of the even-numbered video lines, said first video frame having a first size;

a second buffer coupled to the video frame input source, the second buffer adapted to receive even-numbered video lines from the video frame input, producing a second video frame independent of the odd-numbered video lines, said second video frame having said first size; and

a field scaler coupled to the first and the second buffers, said field scaler operable to produce a scaled output video frame for a video display by independently selecting output between the first buffer and the second buffer, to produce from the first buffer output a first scaled video frame having a second size different from said first size, and to output from the second buffer output a second scaled video frame having said second size.

30. (previously presented) The video signal processing device of claim 29, wherein the video frame input source deinterlaces video input frames producing odd-numbered video lines and even-numbered video lines.

31. (previously presented) The video signal processing device of claim 29, wherein the field scaler produces the output video frame by alternately selecting output from the first buffer and from the second buffer.

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32. (previously presented) The video signal processing device of claim 29, wherein the field scaler duplicates successive lines of the first video frame to produce the first scaled video frame, and duplicates successive lines of the second video frame to produce the second scaled video frame.

33. (currently amended) The video signal processing device of claim 29, wherein the field scaler interpolates between successive lines of the ~~the first~~ video frame and between successive lines of the second video ~~frame~~frame to produce the scaled output video frame.

34. (previously presented) The video signal processing device of claim 29, wherein a last line of the output video frame is produced by copying a last line of the first video frame.

35. (previously presented) The video signal processing device of claim 29, wherein the first line of the scaled second video frame is inserted from a boundary line source.

36. (previously presented) The video signal processing device of claim 35, wherein the boundary line source produces a black line.

37. (previously presented) The video signal processing device of claim 35, wherein the boundary line source produces a line derived from a window background.

38. (previously presented) The video signal processing device of claim 35, wherein the boundary line source produces a line copied from a first line of a previous odd-numbered field.

39. (currently amended) The video signal processing device of claim 29, wherein the video display has a third size, wherein the first video frame and the second video frame have a second size, and wherein the field scaler is operable to produce the scaled output video frame if a ratio between the third size and the first size ~~exceeds~~exceeds a predetermined value.

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40. (previously presented) The video signal processing device of claim 39, wherein the predetermined value is 1.5.

41. (previously presented) The video signal processing device of claim 39, wherein the field scaler is adapted to modify a horizontal size of the output video frame.

42. (previously presented) A computer system, comprising:
a processor;
a video signal processing device coupled to the processor and to a video display, the video signal processing device comprising:
a video frame input source;
a first buffer coupled to the video frame input source, the first buffer adapted to receive odd-numbered video lines from the video frame input, producing independent of the even-numbered video lines, first video frames each having a first size;
a second buffer coupled to the video frame input source, the second buffer adapted to receive even-numbered video lines from the video frame input, producing independent of the odd-numbered video lines, second video frames each having said first size; and
a field scaler coupled to the first and the second buffers and operable to produce scaled output video frames by independently selecting between the first buffer and the second buffer, to produce a scaled first video frame having a second size different from said first size using output from the first buffer, and to produce a scaled second video frame having said second size using output from the second buffer;
wherein said video signal processing device controls successive display of scaled video frames by said display device by selecting between said first buffer and said second buffer to periodically display either a said scaled first video frame or a scaled second video frame.

43. (previously presented) The computer system of claim 42, wherein the field scaler produces the output video frame by alternately selecting between the first buffer and the second buffer.

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44. (previously presented) The computer system of claim 42,
wherein the field scaler produces a scaled output video frame by interlacing previously
presented lines created by interpolating between successive lines in the selected one of the first
video frame and the second video frame.

45. (previously presented) The computer system of claim 42,
wherein the field scaler produces a scaled output video frame by interlacing new lines
created by duplicating successive lines in the selected one of the first video frame and the
second video frame.